

Remarks

In the non-final Office Action dated November 17, 2010, the following new grounds of rejection are presented: claims 1-8 and 10-18 stand rejected under 35 U.S.C. § 103(a) over Joseph (U.S. Patent No. 6,993,645) and Hadi (U.S. Patent No. 7,233,999); claim 9 stands rejected under 35 U.S.C. § 103(a) over the '645 and '999 references in view of Perlman (U.S. Patent No. 7,200,859); and claim 19 stands rejected under 35 U.S.C. § 103(a) over the '645 and '999 references in view of Worely (U.S. Patent No. 7,509,639).

Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Advisory Action or the Office Action(s) of record.

Applicant respectfully traverses the rejections of claims 1-19 under 35 U.S.C. § 103(a) for lack of correspondence. Each of the rejections relies upon the same improper combination of the primary '645 reference with the teachings of the secondary '999 reference. None of the additionally-cited references cure the deficiencies of this underlying combination. Accordingly, Applicant traverses and addresses all of the rejections in this context.

Applicant first notes that the cited portion of the secondary '999 reference does not appear to teach that "multimedia content is being downloaded from a third-party device [while] a computer is booting" (Office Action, p. 4). The cited portion mentions an "image" of an operating system. As commonly used in the art, and as consistently used in the '999 reference's teachings, an image of an operating system is not a multimedia image. Rather, an image is "a representation of a computer program and its related data such as the kernel, file systems, libraries, and programs of the computer at a given point in time." (*See, e.g.,* Attachment provided from http://publib.boulder.ibm.com/infocenter/tivihelp/v13r1/index.jsp?topic=/com.ibm.tivoli.tpm.img.doc/bootsrv/csfi_images.html), accessed Feb. 15, 2011). Thus, the '999 reference does not teach or suggest that multimedia content is downloaded while a computer is booting.

Moreover, the cited portion explains that this image "gets loaded on top of the master operating system 10" (Col 6:28-29). Thus, it would appear that the '999 reference

teaches that the computer has already booted and is running the master operating system 10 before the additional image is downloaded. This appears consistent with the subsequent paragraph that states (Col. 6:35-41) “During the initial boot of the last mile computing system 1, the master operating system 10 is loaded in memory space 61 of the allied resources subsystem 60. The off the shelf commercial operating systems 64 are run on top of the master operating system 10, should subscribers choose to perform the last mile computing in a commercial operating system environment.” This suggests that alleged downloading step occurs after the master operating system is running. Accordingly, the evidence does not support that the downloading occurs during booting of the computer.

Moreover, the stated goal of the proposed modification does not appear to be related to the proposed modification. The Office Action (p. 4) alleges that the modification is obvious “in order to be able to transmit larger multimedia data”; however, the Office Action fails to explain how the proposed modification allows transmission of larger multimedia data. In particular, Applicant does not understand why downloading an operating system image would improve the size of multimedia data that can be transmitted.

For the aforementioned reasons, Applicant submits that the rejections are improper and respectfully requests that they be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Juergen Krause-Polstorff of NXP Corporation at (408) 474-9062.

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Operating system images

An image is a representation of a computer program and its related data such as the kernel, file systems, libraries, and programs of the computer at a given point in time. Tivoli® Provisioning Manager provides the capability to discover, manage, and deploy images for new image installations and backup and recovery. Using Tivoli Provisioning Manager, you can perform the following main tasks:

- Deploy an image to one or more target computers
- Restore a snapshot image to recover a target computer

There are three main ways to create an image:

- Capture the image from a server in your data center.
- Manually add an existing image as an installable image to the software catalog.
- Discover an image on a boot server.

Boot servers deploy images to computers so that they have the same base software. The image can be installed on a new computer that has no software, or it can replace existing software on a computer that you want to reuse.

Tivoli Provisioning Manager supports the following type of images:

Golden master image

A depersonalized boot device image that is used for deployment on multiple computers. This image type uses configuration files to personalize the image for the target computers. Golden master images are generic images that can be installed on a different computer from the computer where the image was captured from.

Snapshot image

Tivoli Provisioning Manager also supports Snapshot images. An image that is used for restoring the original operating system. This type of image would be used to backup an operating system.

Scripted operating system image

An unattended install action where operating system installation files that are used with some configuration files would install the operating system on the target computer using boot server technology.

Related tasks

[Installing an operating system image](#)

[Adding an image](#)

[Capturing an image](#)

[Replicating an image](#)

[Viewing boot server images and details](#)

[Preparing to capture an operating system image](#)

Requirements for capturing an image

Information pertaining to source computers

Ensure that you have the following information. This is required to perform the task.

- The computer that contains the software that you want to capture.
- The boot server that will be used to capture the image.
- The time that you want to capture the image. You can start the capture immediately, or schedule it for a later time.
- If you are capturing an image and the source computer has a static IP address on it, ensure that it obtains the IP address from a DHCP server. This will ensure that the IP address and TCP/IP settings are used from the DHCP server response, when the installation image with the Rembo server completes on the target computer. After the image is captured you can change the settings

back to static IP address settings.

Ensure the source computer has an operating system associated

The source must have an operating system defined on it. This is used to display a list of boot servers that are capable of capturing an image for that operating system and hardware architecture.

Managed by Tivoli Provisioning Manager

The target and source computer must be managed by Tivoli Provisioning Manager

The Microsoft System Preparation file is a tool that helps you to automatically deploy images on multiple computers. Before you actually capture the image from the client computer, the capture image workflow copies and runs the Sysprep files to prepare the computer for cloning. The install image workflow uses Sysprep to personalize the target computer by setting Windows attributes.

The Sysprep tool is located on your Windows version CD-ROM in the Support\Tools\deploy.cab file. A version can also be downloaded free from the Microsoft web site. The Sysprep tool that you use must be the latest service pack level of the operating system release that you will be using. For example, if you have Windows Server 2003 SP1 and SP2 computers, then Sysprep for Windows Server 2003 SP2 should be used, if available from Microsoft. After you have found the tool, extract the cab file with a zip program and place the files sysprep.exe, and setupcl.exe into the %TIO_HOME%\repository\rembo\Windows_subdirectory of your Tivoli Provisioning Manager server. The Windows_subdirectory file will be the operating system that you are using:

- *win2k*: Windows 2000
- *win2k3*: Windows 2003
- *winxp*: Windows XP

Note: Check the sizes of files sysprep.exe and setupcl.exe in the Tivoli Provisioning Manager repository subdirectories of *win2k*, *win2k3*, and *winxp* against the source location where you copied these files from. If the incorrect Windows operating system release of these files are copied into a subdirectory, then Sysprep will fail to execute during capture image with no rebooting of the computer for Rembo to start capturing the image.

Requirements for installing an image

Information required for installing an image

Ensure that you have the following information.

- The boot server that will be used to install the image.
- The boot server contains the image that you want to install.
- The time that you want to install the image. You can start the installation immediately, or schedule it for a later time.

Target computer capabilities

The target computer must have the following capabilities defined:

- Must meet the minimum hardware requirements, as well as other requirements mentioned in the section, Preparing computers for software distribution, to install the image.
- Has network connectivity.
- Have a management IP address.
- If the target computer has a dynamic IP address, the network interface is only required to have a name and dynamic IP address set. The IP address, subnetwork, and default gateway do not need to be specified. Check that the computer name can be resolved with a valid IP address with a DNS nslookup or dig command test on the Tivoli Provisioning Manager server. The correct DNS server IP address must be responding to the request.
- Have networking capabilities such as a network interface card and network interface.
- Have a minimum of one network interface card, netboot enabled with the MAC address defined on it.
- The boot process order must be configured to boot from the network card before hard disk.
- Must be represented in the data center model.

- Have credentials and Service Access Point established on it to access control.

Note: Credential may not be defined if you are installing the images on computers that have no other software or operating system installed. In this case, a manual reboot is done.

Target computer capabilities for using a Rembo server

The target computer with a static IP address must have the following networking properties defined for networking to be properly configured after the image is installed:

- A network interface card (NIC) with a MAC address. The NIC that is cabled and will be receiving PXE responses from the Rembo server must be netboot enabled.
- Must meet the minimum hardware requirements to install the operating system. See [Adding hardware resources to endpoints](#).
- A network interface for each NIC. Each network interface must be defined with a name, subnetwork and default gateway. If the network interface is associated with the computer name, also select the **Management** setting. For RedHat Linux systems, the network interface name must match the network interface name from the operating system ifconfig command. Navigate to **Inventory > Manage Inventory > Subnets** to view the subnetwork properties of network address and netmask.

 **Concept topic**

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